

# MATERIAL SAFETY DATA SHEET



SOLARIS

DATE PREPARED: 07/27/1995

MSDS No: 3897

ORTHO® Diazinon Granules

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ORTHO® Diazinon Granules

PRODUCT DESCRIPTION: Insecticide

### MANUFACTURER

The SOLARIS Group  
of Monsanto Company

P.O. Box 5008

San Ramon, CA 94583-0808

EPA REG. NO.: 239-2375 PN: 5353-G

### 24 HR. EMERGENCY TELEPHONE NUMBERS

Emergency Phone 800-454-2333

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS Registry #</u>
Diazinon, O,O-Diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) Phosphorothioate	2	333-41-5
INERT INGREDIENTS	~ 98 .0	

"Inert Ingredients" is a term defined by the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (40 CFR 158.153). It refers to any substance, other than an active ingredient, which is intentionally added to a pesticide product. Some inert ingredients may be hazardous chemicals, as defined by the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). The hazards associated with these inert ingredients have been included in this document.

## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Tan or grey granules with characteristic organophosphate odor

**IMMEDIATE CONCERNS:** - HARMFUL IF SWALLOWED,  
INHALED OR ABSORBED THROUGH THE SKIN  
- AVOID BREATHING DUST  
- AVOID CONTACT WITH EYES, SKIN OR CLOTHING  
- MAY CAUSE SKIN SENSITIZATION WITH REPEATED CONTACT  
- KEEP OUT OF REACH OF CHILDREN

## **POTENTIAL HEALTH EFFECTS**

**EYES:** The eye irritation potential of this substance has not been determined. However, it is not expected to cause eye irritation due to the granular formulation of this product. If eye contact occurs, eye irritation may include; discomfort, redness, swelling and blurred vision. See Toxicology section 11.

**SKIN:** This substance is not expected to cause prolonged or significant skin irritation. This substance can cause allergic skin reactions in some individuals. The dermal toxicity of this substance has not been determined. However, it may be slightly toxic to internal organs if absorbed through the skin. The degree of injury will depend on the amount absorbed.

**INGESTION:** Ingestion may cause irritation of the digestive tract which may include nausea, vomiting, and diarrhea. If swallowed, this substance is considered practically non-toxic to internal organs. See Toxicological Information, section 11.

**INHALATION:** The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if inhaled. This substance may be irritating if inhaled.

**COMMENTS HEALTH:** Depending upon the extent and degree of overexposure to the product, signs and symptoms of cholinesterase inhibition can result following either ingestion, skin contact or inhalation routes of exposure. Signs and symptoms of cholinesterase inhibition can result from either acute (one time), subchronic (repeated short-term) and chronic (daily life-time) overexposure to the product.

Signs and symptoms of cholinesterase inhibition usually occur within 12 hours following overexposure. These effects may include, but may not be limited to, headache, dizziness, weakness, nausea, vomiting, diarrhea, constriction of the pupil of the eye, blurred or dark vision, excessive salivation or nasal discharge, profuse sweating and abdominal cramps. Incontinence, unconsciousness, convulsions and breathing difficulties are indicative of severe poisoning. In untreated severe poisoning, death is due to respiratory failure or cardiac arrest.

## **4. FIRST AID MEASURES**

**EYES:** If in eyes, immediately flush with plenty of water. Call a physician immediately.

**SKIN:** Remove contaminated clothing. Wash skin thoroughly with soap and water. See a doctor if any signs or symptoms described in this document occur. Wash contaminated clothing.

**INGESTION:** If swallowed, drink 1 or 2 glasses of water and induce vomiting by touching the back of the throat with finger. If possible, contact a physician, Poison Control Center, or emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take person and product container to the nearest emergency treatment center.

**INHALATION:** If respiratory discomfort or irritation occurs, move the person to fresh air. See a doctor if discomfort or irritation continues.

**NOTES TO PHYSICIAN:** This material contains a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.

**ADDITIONAL INFORMATION:** In case of medical emergencies involving this product, call day or night, (800) 454-2333.

## 5. FIRE FIGHTING MEASURES

**FLASHPOINT AND METHOD:** Not Applicable

**EXTINGUISHING MEDIA:** CO<sub>2</sub>, dry chemical, foam and water fog.

**HAZARDOUS COMBUSTION PRODUCTS:** Thermal decomposition products include, but are not limited to, various aliphatic organophosphates, substituted pyrimidines, and hydrogen cyanide.

**FIRE FIGHTING PROCEDURES:** This material will support combustion although it is not easily ignited. Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire fighting equipment before reuse. Read the entire document.

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Sweep up material and use according to label instructions or dispose of in the trash.

**LARGE SPILL:** Clean up spills immediately, observing precautions in Exposure Controls/ Personal Protection section. Vacuum with machines equipped with high efficiency filters or sweep up material and place in a disposable container. Scrub contaminated area with detergent and water using a stiff broom. Pick up liquid with Oil Dry, cat litter, clay, rags or other absorbent and place in a disposable container. Dispose of in accordance with instructions in Section 13. "DISPOSAL".

**GENERAL PROCEDURES:** Observe all protection and safety precautions when cleaning up spills -- see Section 8. "EXPOSURE CONTROLS/PERSONAL PROTECTION". For help with any spill, leak, fire or exposure involving this material, call day or night (800) 454-2333.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Keep pesticide in original container. Do not put into food or drink containers. Avoid contamination of feed and foodstuffs. Store in a cool, dry place, preferably locked storage area.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use this material only in well ventilated areas.

### PERSONAL PROTECTION

**EYES AND FACE:** For application of product in accordance with label instructions, no special eye protection is needed.

Handling of this product during manufacturing or in the event of an accidental discharge of the material which could cause eye contact, workers should wear goggles or a face shield.

**SKIN:** Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including chemical resistant gloves.

**RESPIRATORY:** Normal handling of this product is not likely to present an airborne exposure concern. In the event of an accidental discharge of this material or any manufacturing procedure which produces a heavy dust, workers should put on respiratory protection equipment. Consult respirator manufacturer to determine appropriate type of equipment. Observe respirator use limitations specified by NIOSH MSHA or the manufacturer.

For application of product in accordance with label instructions, no special

respiratory protection is required.

### OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

<u>Chemical Name</u>	<u>EXPOSURE LIMITS</u>			
	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>ACGIH STEL</u>	
O,O-Diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) Phosphorothioate	TWA	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>	None
Magnesium Carbonate		5 mg/m <sup>3</sup>	3 mg/m <sup>3</sup> Resperable	None

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Granular

**APPEARANCE:** Tan or grey colored granules with characteristic organophosphate odor

**pH:** Not Applicable

**PERCENT VOLATILE:** No Data Available

**DENSITY:** 36-42 lbs/cubic ft.

**PARTICLE SIZE:** 8-30 mesh

## 10. STABILITY AND REACTIVITY

**STABLE:** YES

**HAZARDOUS POLYMERIZATION:** NO

**HAZARDOUS DECOMPOSITION:** Tetraethylpyrophosphate (TEPP) and Oxo-Diazinon may form upon contact with strong oxidants.

**INCOMPATIBLE MATERIALS:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE

**EYES:** The hazard evaluation for this material was based on eye irritation test results for a similar material: Eye irritation clearing in 24hours for washed eyes. Seven days were required for total reversal of irritation in unwashed eyes.

**DERMAL LD<sub>50</sub>:** The hazard evaluation for this material was based on skin irritation test results for a similar material: Minor irritation to the skin of rabbits clearing by 72 hours. The hazard evaluation for this material was based on dermal toxicity results for a similar material: The dermal LD50 in rabbits is greater than 10 g/kg.

**ORAL LD<sub>50</sub>:** The hazard evaluation for this material was based on oral toxicity results for a similar material: The oral LD50 in rats is greater than 9.0 g/kg.

**INHALATION LC<sub>50</sub>:** No product toxicology data available.

## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** No data available.

**ECOTOXICOLOGICAL INFORMATION:** This material is toxic to birds and other wildlife. This material is toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.

## 13. DISPOSAL CONSIDERATIONS

**FOR LARGE SPILLS:** Material collected that cannot be reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures.

**PRODUCT DISPOSAL:** The Solaris Group is committed to responsible environmental practices and recommends that all of the product be used up, carefully following all label directions and precautions.

If necessary to dispose of partially filled product container, then securely wrap it in several layers of newspaper and discard in trash.

**EMPTY CONTAINER:** Do not reuse empty container. Discard container in trash.

## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

**PROPER SHIPPING NAME:** Not Regulated

**PRIMARY HAZARD CLASS/DIVISION:** None

**UN/NA NUMBER:** NONE

**PACKING GROUP:** NO

**U.S. SURFACE FREIGHT CLASS:** Insecticides, Fungicides, Insect or animal repellents or vermin exterminators, NOI, Other than poison

**OTHER SHIPPING INFORMATION:** If the total quantity of this product shipped per container equals or exceeds 20 pounds, the the shipping description changes to: Consumer Commodity, ORM-D, RQ (Diazinon). U.S. Freight Class: NMFC NBR. 102120

## **VESSEL (IMO/IMDG)**

**MARINE POLLUTANT #1:** Diazinon - Severe Marine Pollutant

**SPECIAL SHIPPING NOTES:** The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

## **15. REGULATORY INFORMATION**

### **UNITED STATES**

#### **SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA				
ACUTE:	CHRONIC:	FIRE:	REACTIVITY:	PRESSURE
YES	YES	NO	NO	GENERATING: NO

**313 REPORTABLE INGREDIENTS:** Diazinon (CAS 333-41-5).  
De Minimis Concentration for Section 313 of EPCRA is 1.0%.

#### **CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

**CERCLA RQ:** 1 Lb. of Diazinon.

#### **TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA REGULATORY:** All non FIFRA regulated components are on the US EPA's TSCA Inventory List.

## **16. OTHER INFORMATION**

### **HMIS CODES**

**FIRE: 0 HEALTH: 2 REACTIVITY: 0 PROTECTION: -**

## **NFPA CODES**

**FIRE: 0 HEALTH: 2 REACTIVITY: 0 SPECIAL: -**

**APPROVAL DATE:** 09/11/1995

## **REVISION SUMMARY** New MSDS

**COMMENTS:** For additional information concerning this product, call the SOLARIS Groups Consumer Helpline at 800-225-2883.

**MANUFACTURER DISCLAIMER:** This Material Safety Data Sheet (MSDS) contains health, safety and environmental information for you and your employees. It does not replace the precautionary language, use directions, or the storage and disposal information found on the product label. Information contained in this MSDS will help you to prepare for emergency response and to meet community right-to-know, emergency response and reporting requirements under SARA Title III and many other laws. Emergency response agencies and health care providers will also find this additional information useful.

Use of this product is regulated by the U.S. Environmental Protection Agency (EPA) through the approved label copy. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Monsanto Company and The Solaris Group make no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determinations as to its suitability for their purposes prior to use. In no event will Monsanto Company or The Solaris Group be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.